

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended): A process for cleaning substrates comprising:

placing the substrates to be cleaned in a vessel wherein the vessel is not pressurized;

adding at least one organic solvent to the vessel;

cleaning the substrates for a time sufficient to clean the substrates with the [an] organic solvent in the absence of liquid carbon dioxide;

removing a portion of the organic solvent from the vessel;

adding at least one pressurized fluid solvent to the vessel;

removing the pressurized fluid solvent from the vessel; and

removing the substrates from the vessel;

wherein, when the pressurized fluid solvent is liquid carbon dioxide, the liquid carbon dioxide is at a subcritical condition.
2. (original): The process of claim 1 wherein the organic solvent comprises a cyclic terpene.
3. (original): The process of claim 2 wherein the cyclic terpene:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 0.800;

has a dispersion Hansen solubility parameter of between $13.0 \text{ (MPa)}^{1/2}$ and $17.5 \text{ (MPa)}^{1/2}$;

has a polar Hansen solubility parameter of between $0.5 \text{ (MPa)}^{1/2}$ and $9.0 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $10.5 \text{ (MPa)}^{1/2}$.

4. (original): The process of claim 3 wherein the cyclic terpene further:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and

has a flash point greater than 100 degrees Fahrenheit.

5. (original): The process of claim 4 wherein the cyclic terpene is selected from a group including α -terpene isomers; pine oil; α -pinene isomers; d-limonene; and mixtures thereof.

6. (original): The process of claim 1 wherein the organic solvent comprises a halocarbon.

7. (original): The process of claim 6 wherein the halocarbon:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 1.100;

has a dispersion Hansen solubility parameter of between $10.0 \text{ (MPa)}^{1/2}$ and $17.0 \text{ (MPa)}^{1/2}$;

has a polar Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $7.0 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $5.0 \text{ (MPa)}^{1/2}$.

8. (original): The process of claim 7 wherein the halocarbon further:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and

has a flash point greater than 100 degrees Fahrenheit.

9. (original): The process of claim 8 wherein the halocarbon is selected from a group including chlorinated hydrocarbons; fluorinated hydrocarbons; brominated hydrocarbons; and mixtures thereof.

10. (original): The process of claim 1 wherein the organic solvent comprises a glycol ether.

11. (original): The process of claim 10 wherein the glycol ether:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.800;
has a dispersion Hansen solubility parameter of between $13.0 \text{ (MPa)}^{1/2}$ and $19.5 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $3.0 \text{ (MPa)}^{1/2}$ and $7.5 \text{ (MPa)}^{1/2}$; and
has a hydrogen bonding Hansen solubility parameter of between $8.0 \text{ (MPa)}^{1/2}$ and $17.0 \text{ (MPa)}^{1/2}$.

12. (original): The process of claim 11 wherein the glycol ether further:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

13. (original): The process of claim 12 wherein the glycol ether is selected from a group including monoethylene glycol ether; diethylene glycol ether; triethylene glycol ether; monopropylene glycol ether; dipropylene glycol ether; tripropylene glycol ether; and mixtures thereof.

14. (original): The process of claim 1 wherein the organic solvent comprises a polyol.

15. (original): The process of claim 14 wherein the polyol:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 0.920;

has a dispersion Hansen solubility parameter of between $14.0 \text{ (MPa)}^{1/2}$ and $18.2 \text{ (MPa)}^{1/2}$;

has a polar Hansen solubility parameter of between $4.5 \text{ (MPa)}^{1/2}$ and $20.5 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $15.0 \text{ (MPa)}^{1/2}$ and $30.0 \text{ (MPa)}^{1/2}$.

16. (original): The process of claim 15 wherein the polyol further:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and

has a flash point greater than 100 degrees Fahrenheit.

17. (original): The process of claim 16 wherein the polyol contains two or more hydroxyl radicals.

18. (original): The process of claim 1 wherein the organic solvent comprises an ether.

19. (original): The process of claim 18 wherein the ether:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 0.800;

has a dispersion Hansen solubility parameter of between $14.5 \text{ (MPa)}^{1/2}$ and $20.0 \text{ (MPa)}^{1/2}$;

has a polar Hansen solubility parameter of between $1.5 \text{ (MPa)}^{1/2}$ and $6.5 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $5.0 \text{ (MPa)}^{1/2}$ and $10.0 \text{ (MPa)}^{1/2}$.

20. (original): The process of claim 19 wherein the ether further:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and

has a flash point greater than 100 degrees Fahrenheit.

21. (original): The process of claim 20 wherein the ether contains no free hydroxyl radicals.

22. (original): The process of claim 1 wherein the organic solvent comprises an ester of glycol ethers.

23. (original): The process of claim 22 wherein the ester of glycol ethers:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.800;
has a dispersion Hansen solubility parameter of between $15.0 \text{ (MPa)}^{1/2}$ and $20.0 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $3.0 \text{ (MPa)}^{1/2}$ and $10.0 \text{ (MPa)}^{1/2}$; and
has a hydrogen bonding Hansen solubility parameter of between $8.0 \text{ (MPa)}^{1/2}$ and $16.0 \text{ (MPa)}^{1/2}$.

24. (original): The process of claim 23 wherein the ester of glycol ethers further:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

25. (original): The process of claim 1 wherein the organic solvent comprises an ester of monobasic carboxylic acids.

26. (original): The process of claim 25 wherein the ester of monobasic carboxylic acids:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 0.800;

has a dispersion Hansen solubility parameter of between $13.0 \text{ (MPa)}^{1/2}$ and $17.0 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $2.0 \text{ (MPa)}^{1/2}$ and $7.5 \text{ (MPa)}^{1/2}$; and
has a hydrogen bonding Hansen solubility parameter of between $1.5 \text{ (MPa)}^{1/2}$ and $6.5 \text{ (MPa)}^{1/2}$.

27. (original): The process of claim 26 wherein the ester of monobasic carboxylic acids further:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

28. (original): The process of claim 1 wherein the organic solvent comprises a fatty alcohol.

29. (original): The process of claim 28 wherein the fatty alcohol:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.800;
has a dispersion Hansen solubility parameter of between $13.3 \text{ (MPa)}^{1/2}$ and $18.4 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $3.1 \text{ (MPa)}^{1/2}$ and $18.8 \text{ (MPa)}^{1/2}$; and
has a hydrogen bonding Hansen solubility parameter of between $8.4 \text{ (MPa)}^{1/2}$ and $22.3 \text{ (MPa)}^{1/2}$.

30. (original): The process of claim 29 wherein the fatty alcohol further:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

31. (original): The process of claim 30 wherein, in the fatty alcohol, the carbon chain adjacent to the hydroxyl group contains at least five carbon atoms.

32. (original): The process of claim 1 wherein the organic solvent comprises a short chain alcohol.

33. (original): The process of claim 32 wherein the short chain alcohol:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.800;
has a dispersion Hansen solubility parameter of between $13.5 \text{ (MPa)}^{1/2}$ and $18.0 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $3.0 \text{ (MPa)}^{1/2}$ and $9.0 \text{ (MPa)}^{1/2}$; and
has a hydrogen bonding Hansen solubility parameter of between $9.0 \text{ (MPa)}^{1/2}$ and $16.5 \text{ (MPa)}^{1/2}$.

34. (original): The process of claim 33 wherein the short chain alcohol further:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

35. (original): The process of claim 34 wherein, in the short chain alcohol, the carbon chain adjacent to the hydroxyl group contains no more than four carbon atoms.

36. (original): The process of claim 1 wherein the organic solvent comprises a siloxane.

37. (original): The process of claim 36 wherein the siloxane:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.900;
has a dispersion Hansen solubility parameter of between $14.0 \text{ (MPa)}^{1/2}$ and $18.0 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $4.5 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $4.5 \text{ (MPa)}^{1/2}$.

38. (original): The process of claim 37 wherein the siloxane:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and

has a flash point greater than 100 degrees Fahrenheit.

39. (original): The process of claim 1 wherein the organic solvent comprises a hydrofluoroether.

40. (original): The process of claim 39 wherein the hydrofluoroether:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 1.500;

has a dispersion Hansen solubility parameter of between $12.0 \text{ (MPa)}^{1/2}$ and $18.0 \text{ (MPa)}^{1/2}$;

has a polar Hansen solubility parameter of between $4.0 \text{ (MPa)}^{1/2}$ and $10.0 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $1.5 \text{ (MPa)}^{1/2}$ and $9.0 \text{ (MPa)}^{1/2}$.

41. (original): The process of claim 40 wherein the hydrofluoroether:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and

has a flash point greater than 100 degrees Fahrenheit.

42. (original): The process of claim 1 wherein the organic solvent comprises an aliphatic hydrocarbon.

43. (original): The process of claim 42 wherein the aliphatic hydrocarbon:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 0.700;
has a dispersion Hansen solubility parameter of between $14.0 \text{ (MPa)}^{1/2}$ and $17.0 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $2.0 \text{ (MPa)}^{1/2}$; and
has a hydrogen bonding Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $2.0 \text{ (MPa)}^{1/2}$.

44. (original): The process of claim 43 wherein the aliphatic hydrocarbon:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

45. (original): The process of claim 1 wherein the organic solvent comprises an ester of dibasic carboxylic acids.

46. (original): The process of claim 45 wherein the ester of dibasic carboxylic acids:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.900;
has a dispersion Hansen solubility parameter of between $13.5 \text{ (MPa)}^{1/2}$ and $18.0 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $4.0 \text{ (MPa)}^{1/2}$ and $6.5 \text{ (MPa)}^{1/2}$; and
has a hydrogen bonding Hansen solubility parameter of between $4.0 \text{ (MPa)}^{1/2}$ and $11.0 \text{ (MPa)}^{1/2}$.

47. (original): The process of claim 46 wherein the ester of dibasic carboxylic acids:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

48. (original): The process of claim 1 wherein the organic solvent comprises a ketone.

49. (original): The process of claim 48 wherein the ketone:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 0.800;

has a dispersion Hansen solubility parameter of between $13.0 \text{ (MPa)}^{1/2}$ and $19.0 \text{ (MPa)}^{1/2}$;

has a polar Hansen solubility parameter of between $3.0 \text{ (MPa)}^{1/2}$ and $8.0 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $3.0 \text{ (MPa)}^{1/2}$ and $11.0 \text{ (MPa)}^{1/2}$.

50. (original): The process of claim 49 wherein the ketone:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and

has a flash point greater than 100 degrees Fahrenheit.

51. (original): The process of claim 1 wherein the organic solvent comprises an aprotic solvent that contains no dissociable hydrogens.

52. (original): The process of claim 51 wherein the aprotic solvent:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 0.900;

has a dispersion Hansen solubility parameter of between $15.0 \text{ (MPa)}^{1/2}$ and $21.0 \text{ (MPa)}^{1/2}$;

has a polar Hansen solubility parameter of between $6.0 \text{ (MPa)}^{1/2}$ and $17.0 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $4.0 \text{ (MPa)}^{1/2}$ and $13.0 \text{ (MPa)}^{1/2}$.

53. (original): The process of claim 52 wherein the aprotic solvent:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and

has a flash point greater than 100 degrees Fahrenheit.

54. (original): The process of claim 1 wherein the pressurized fluid solvent is densified carbon dioxide.

55. (previously withdrawn) A system for cleaning substrates comprising:
a cleaning vessel adapted to hold contaminated substrates and organic solvent;
an organic solvent tank operatively connected to the cleaning vessel;
a pump for pumping organic solvent from the organic solvent tank to the cleaning vessel;
a drying vessel adapted to hold cleaned substrates and pressurized fluid solvent;
a pressurized fluid solvent tank operatively connected to the drying vessel; and
a pump for pumping pressurized fluid solvent from the pressurized fluid solvent tank to the drying vessel.

56. (previously withdrawn) The system of claim 55 wherein the organic solvent comprises a cyclic terpene.

57. (previously withdrawn) The system of claim 56 wherein the cyclic terpene:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.800;
has a dispersion Hansen solubility parameter of between $13.0 \text{ (MPa)}^{1/2}$ and $17.5 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $0.5 \text{ (MPa)}^{1/2}$ and $9.0 \text{ (MPa)}^{1/2}$;
and
has a hydrogen bonding Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $10.5 \text{ (MPa)}^{1/2}$.

58. (previously withdrawn) The system of claim 57 wherein the cyclic terpene further:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

59. (previously withdrawn) The system of claim 58 wherein the cyclic terpene is selected from a group including α -terpene isomers; pine oil; α -pinene isomers; d-limonene; and mixtures thereof.

60. (previously withdrawn) The system of claim 55 wherein the organic solvent comprises a halocarbon.

61. (previously withdrawn) The system of claim 60 wherein the halocarbon:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 1.100;
has a dispersion Hansen solubility parameter of between $10.0 \text{ (MPa)}^{1/2}$ and $17.0 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $7.0 \text{ (MPa)}^{1/2}$;
and
has a hydrogen bonding Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $5.0 \text{ (MPa)}^{1/2}$.

62. (previously withdrawn) The system of claim 61 wherein the halocarbon further:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

63. (previously withdrawn) The system of claim 62 wherein the halocarbon is selected from a group including chlorinated hydrocarbons; fluorinated hydrocarbons; brominated hydrocarbons; and mixtures thereof.

64. (previously withdrawn) The system of claim 55 wherein the organic solvent comprises a glycol ether.
65. (previously withdrawn) The system of claim 64 wherein the glycol ether:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.800;
has a dispersion Hansen solubility parameter of between $13.0 \text{ (MPa)}^{1/2}$ and $19.5 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $3.0 \text{ (MPa)}^{1/2}$ and $7.5 \text{ (MPa)}^{1/2}$;
and
has a hydrogen bonding Hansen solubility parameter of between $8.0 \text{ (MPa)}^{1/2}$ and $17.0 \text{ (MPa)}^{1/2}$.
66. (previously withdrawn) The system of claim 65 wherein the glycol ether further:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.
67. (previously withdrawn) The system of claim 66 wherein the glycol ether is selected from a group including monoethylene glycol ether; diethylene glycol ether; triethylene glycol ether; monopropylene glycol ether; dipropylene glycol ether; tripropylene glycol ether; and mixtures thereof.
68. (previously withdrawn) The system of claim 55 wherein the organic solvent comprises a polyol.
69. (previously withdrawn) The system of claim 68 wherein the polyol:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.920;

has a dispersion Hansen solubility parameter of between $14.0 \text{ (MPa)}^{1/2}$ and $18.2 \text{ (MPa)}^{1/2}$;

has a polar Hansen solubility parameter of between $4.5 \text{ (MPa)}^{1/2}$ and $20.5 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $15.0 \text{ (MPa)}^{1/2}$ and $30.0 \text{ (MPa)}^{1/2}$.

70. (previously withdrawn) The system of claim 69 wherein the polyol further:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

71. (previously withdrawn) The system of claim 70 wherein the polyol contains two or more hydroxyl radicals.

72. (previously withdrawn) The system of claim 55 wherein the organic solvent comprises an ether.

73. (previously withdrawn) The system of claim 72 wherein the ether:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.800;
has a dispersion Hansen solubility parameter of between $14.5 \text{ (MPa)}^{1/2}$ and $20.0 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $1.5 \text{ (MPa)}^{1/2}$ and $6.5 \text{ (MPa)}^{1/2}$; and
has a hydrogen bonding Hansen solubility parameter of between $5.0 \text{ (MPa)}^{1/2}$ and $10.0 \text{ (MPa)}^{1/2}$.

74. (previously withdrawn) The system of claim 73 wherein the ether further:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and

has a flash point greater than 100 degrees Fahrenheit.

75. (previously withdrawn) The system of claim 74 wherein the ether contains no free hydroxyl radicals.

76. (previously withdrawn) The system of claim 55 wherein the organic solvent comprises an ester of glycol ethers.

77. (previously withdrawn) The system of claim 76 wherein the ester of glycol ethers:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 0.800;

has a dispersion Hansen solubility parameter of between $15.0 \text{ (MPa)}^{1/2}$ and $20.0 \text{ (MPa)}^{1/2}$;

has a polar Hansen solubility parameter of between $3.0 \text{ (MPa)}^{1/2}$ and $10.0 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $8.0 \text{ (MPa)}^{1/2}$ and $16.0 \text{ (MPa)}^{1/2}$.

78. (previously withdrawn) The system of claim 77 wherein the ester of glycol ethers further:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and

has a flash point greater than 100 degrees Fahrenheit.

79. (previously withdrawn) The system of claim 55 wherein the organic solvent comprises an ester of monobasic carboxylic acids.

80. (previously withdrawn) The system of claim 79 wherein the ester of monobasic carboxylic acids:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 0.800;

has a dispersion Hansen solubility parameter of between $13.0 \text{ (MPa)}^{1/2}$ and $17.0 \text{ (MPa)}^{1/2}$;

has a polar Hansen solubility parameter of between $2.0 \text{ (MPa)}^{1/2}$ and $7.5 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $1.5 \text{ (MPa)}^{1/2}$ and $6.5 \text{ (MPa)}^{1/2}$.

81. (previously withdrawn) The system of claim 80 wherein the ester of monobasic carboxylic acids further:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and

has a flash point greater than 100 degrees Fahrenheit.

82. (previously withdrawn) The system of claim 55 wherein the organic solvent comprises a fatty alcohol.

83. (previously withdrawn) The system of claim 82 wherein the fatty alcohol:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 0.800;

has a dispersion Hansen solubility parameter of between $13.3 \text{ (MPa)}^{1/2}$ and $18.4 \text{ (MPa)}^{1/2}$;

has a polar Hansen solubility parameter of between $3.1 \text{ (MPa)}^{1/2}$ and $18.8 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $8.4 \text{ (MPa)}^{1/2}$ and $22.3 \text{ (MPa)}^{1/2}$.

84. (previously withdrawn) The system of claim 83 wherein the fatty alcohol further:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

85. (previously withdrawn) The system of claim 84 wherein, in the fatty alcohol, the carbon chain adjacent to the hydroxyl group contains at least five carbon atoms.

86. (previously withdrawn) The system of claim 55 wherein the organic solvent comprises a short chain alcohol.

87. (previously withdrawn) The system of claim 86 wherein the short chain alcohol:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and
between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.800;
has a dispersion Hansen solubility parameter of between $13.5 \text{ (MPa)}^{1/2}$ and $18.0 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $3.0 \text{ (MPa)}^{1/2}$ and $9.0 \text{ (MPa)}^{1/2}$;
and
has a hydrogen bonding Hansen solubility parameter of between $9.0 \text{ (MPa)}^{1/2}$ and $16.5 \text{ (MPa)}^{1/2}$.

88. (previously withdrawn) The system of claim 87 wherein the short chain alcohol further:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

89. (previously withdrawn) The system of claim 88 wherein, in the short chain alcohol, the carbon chain adjacent to the hydroxyl group contains no more than four carbon atoms.

90. (previously withdrawn) The system of claim 55 wherein the organic solvent comprises a siloxane.

91. (previously withdrawn) The system of claim 90 wherein the siloxane:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.900;
has a dispersion Hansen solubility parameter of between $14.0 \text{ (MPa)}^{1/2}$ and $18.0 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $4.5 \text{ (MPa)}^{1/2}$;
and
has a hydrogen bonding Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $4.5 \text{ (MPa)}^{1/2}$.

92. (previously withdrawn) The system of claim 91 wherein the siloxane:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

93. (previously withdrawn) The system of claim 55 wherein the organic solvent comprises a hydrofluoroether.

94. (previously withdrawn) The system of claim 93 wherein the hydrofluoroether:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 1.500;
has a dispersion Hansen solubility parameter of between $12.0 \text{ (MPa)}^{1/2}$ and $18.0 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $4.0 \text{ (MPa)}^{1/2}$ and $10.0 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $1.5 \text{ (MPa)}^{1/2}$ and $9.0 \text{ (MPa)}^{1/2}$.

95. (previously withdrawn) The system of claim 94 wherein the hydrofluoroether:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

96. (previously withdrawn) The system of claim 55 wherein the organic solvent
comprises an aliphatic hydrocarbon.

97. (previously withdrawn) The system of claim 96 wherein the aliphatic
hydrocarbon:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and
between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.700;
has a dispersion Hansen solubility parameter of between $14.0 \text{ (MPa)}^{1/2}$ and $17.0 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $2.0 \text{ (MPa)}^{1/2}$;
and
has a hydrogen bonding Hansen solubility parameter of between $0.0 \text{ (MPa)}^{1/2}$ and $2.0 \text{ (MPa)}^{1/2}$.

98. (previously withdrawn) The system of claim 97 wherein the aliphatic
hydrocarbon:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.

99. (previously withdrawn) The system of claim 55 wherein the organic solvent
comprises an ester of dibasic carboxylic acids.

100. (previously withdrawn) The system of claim 99 wherein the ester of dibasic carboxylic acids:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 0.900;

has a dispersion Hansen solubility parameter of between $13.5 \text{ (MPa)}^{1/2}$ and $18.0 \text{ (MPa)}^{1/2}$;

has a polar Hansen solubility parameter of between $4.0 \text{ (MPa)}^{1/2}$ and $6.5 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $4.0 \text{ (MPa)}^{1/2}$ and $11.0 \text{ (MPa)}^{1/2}$.

101. (previously withdrawn) The system of claim 100 wherein the ester of dibasic carboxylic acids:

has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and

has a flash point greater than 100 degrees Fahrenheit.

102. (previously withdrawn) The system of claim 55 wherein the organic solvent comprises a ketone.

103. (previously withdrawn) The system of claim 102 wherein the ketone:

is soluble in carbon dioxide between 600 and 1050 pounds per square inch and between 5 and 30 degrees Celsius;

has a specific gravity of greater than approximately 0.800;

has a dispersion Hansen solubility parameter of between $13.0 \text{ (MPa)}^{1/2}$ and $19.0 \text{ (MPa)}^{1/2}$;

has a polar Hansen solubility parameter of between $3.0 \text{ (MPa)}^{1/2}$ and $8.0 \text{ (MPa)}^{1/2}$; and

has a hydrogen bonding Hansen solubility parameter of between $3.0 \text{ (MPa)}^{1/2}$ and $11.0 \text{ (MPa)}^{1/2}$.

104. (previously withdrawn) The system of claim 103 wherein the ketone:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.
105. (previously withdrawn) The system of claim 55 wherein the organic solvent
comprises an aprotic solvent that contains no dissociable hydrogens.
106. (previously withdrawn) The system of claim 105 wherein the aprotic solvent:
is soluble in carbon dioxide between 600 and 1050 pounds per square inch and
between 5 and 30 degrees Celsius;
has a specific gravity of greater than approximately 0.900;
has a dispersion Hansen solubility parameter of between $15.0 \text{ (MPa)}^{1/2}$ and $21.0 \text{ (MPa)}^{1/2}$;
has a polar Hansen solubility parameter of between $6.0 \text{ (MPa)}^{1/2}$ and $17.0 \text{ (MPa)}^{1/2}$; and
has a hydrogen bonding Hansen solubility parameter of between $4.0 \text{ (MPa)}^{1/2}$ and $13.0 \text{ (MPa)}^{1/2}$.
107. (previously withdrawn) The system of claim 106 wherein the aprotic solvent:
has an evaporation rate of lower than 50 (based on n-butyl acetate = 100); and
has a flash point greater than 100 degrees Fahrenheit.
108. (previously withdrawn) The system of claim 55 wherein the pressurized fluid
solvent is densified carbon dioxide.

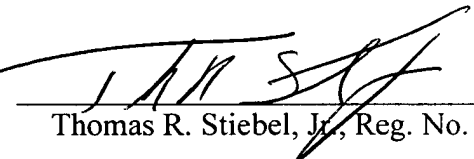
CONCLUSION

With entry of the above Amendment and in view of the Remarks included in the September 22, 2003 Amendment and Response to the May 21, 2003 Office Action, Applicants respectfully submits that any outstanding rejections and objections have been overcome. Applicants respectfully requests withdrawal of the rejections and objections and that a timely Notice of Allowance be issued in this application.

None of Applicants' amendments are to be construed as dedicating any such subject matter to the public, and Applicants reserves all rights to pursue any such subject matter in this or a related patent application. If, in the opinion of the Examiner, a phone call may help to expedite prosecution of this application, the Examiner is invited to call Applicants' undersigned attorney at (312) 701-8775.

Respectfully submitted,

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Dated: October 22, 2003

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